

IN THE CLAIMS:

1. (Currently Amended) A system ~~self retaining implant~~ for attaching a bone cover or a bone fragment to a skull, the system ~~implant~~ comprising:

an implant including:

a support element having an upper side and a lower side;

an extension extending substantially at a right angle from the lower side of the support element to an end remote from the support element and substantially straight between the support element and the end; and

at least one spike extending substantially parallel to the support element such that the spike can be driven laterally into the bone cover or bone fragment prior to positioning the bone cover or bone fragment adjacent to the skull,

wherein the support element comprises two support arms extending in opposite directions from the extension with the first of the two support arms defining a screw hole therein for receiving a fastener to secure the first support arm to the skull after the spike has been driven laterally into the bone cover or bone fragment and after positioning the bone cover or bone fragment adjacent to the skull and the second of the two support arms for cooperating with the bone cover or bone fragment when driving the spike laterally into the bone cover or bone fragment,

an implant delivery device adapted to receive the implant and apply a force to the implant to drive the at least one spike laterally into the bone cover or bone fragment.

2-4. (Canceled)

5. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the lower side of the support element is concave or spherically curved at least in sections.

6. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the spike is disposed at the end of the extension remote from the support element and extends from the end of the extension remote from the support element.

7-9. (Canceled)

10. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the support element has a thickness increasing in the direction of the screw hole.

11. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein an inside of the screw hole is spherically curved.

12-28. (Canceled)

29. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the spike extends from the extension in a same direction as the second support arm and cooperates with the second support arm and the bone cover or bone fragment to anchor the implant.

30. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the spike has a substantially triangular form.

31. (Currently Amended) The system ~~implant~~ according to Claim 30, wherein the second support arm extends in a same direction as the substantially

triangular spike and cooperates with the substantially triangular spike and the bone cover or bone fragment to anchor the implant.

32-37. (Canceled)

38. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the extension is inelastic such that the extension extends rigidly from the lower side of the support element.

39. (Currently Amended) The system ~~implant~~ according to Claim 29, wherein the second support arm has a length and the spike extends from the extension more than one half the length of the second support arm to anchor the implant.

40. (Currently Amended) The system ~~implant~~ according to Claim 1, wherein the second support arm has a length and the spike extends from the extension more than one half the length of the second support arm to anchor the implant.

41. (Currently Amended) The system ~~implant~~ according to Claim 40, wherein the upper side of the support element is continuous across the second support arm such that the second support arm is free of any screw hole.

42-43. (Canceled)

44. (Currently Amended) A method of attaching a bone cover or a bone fragment to a skull with a self-retaining implant comprising a support element having a lower side, an extension extending substantially at a right angle from the lower side of the support element to an end remote from the support element and substantially straight between the support element and the end, and at least one spike extending

substantially parallel to the support element, wherein the support element includes two support arms extending in opposite directions from the extension with the first of the two support arms defining a screw hole therein for receiving a fastener and the second of the two support arms for cooperating with the bone cover or bone fragment, said method comprising the steps of:

providing an implant delivery device adapted to receive the implant;

driving the spike laterally into the bone cover or bone fragment by applying a force to the implant using the implant delivery device;

positioning the bone cover or bone fragment adjacent to the skull after driving the spike laterally into the bone cover or bone fragment; and

securing the first support arm to the skull after positioning the bone cover or bone fragment adjacent to the skull.

45. (New) The system according to Claim 1 wherein the implant delivery device comprises:

a receiving element defining a slot at one end thereof for receiving the first support arm; and

a driving-in mechanism coupled to the receiving element for driving the at least one spike of the implant laterally into the bone cover or bone fragment.

46. (New) The system according to Claim 45, wherein the receiving element includes an end such that a striking force can be applied to the receiving element end by the driving-in mechanism.

47. (New) The system according to Claim 45, wherein the driving-in mechanism comprises a striking element displaceable against a spring force.

48. (New) A self-retaining implant for use with an implant delivery device to attach ~~attaching~~ a bone cover or a bone fragment to a skull, the implant comprising:

a support element having an upper side and a lower side;

an extension extending substantially at a right angle from the lower side of the support element to an end remote from the support element and substantially straight between the support element and the end; and

at least one spike extending substantially parallel to the support element such that the spike can be driven laterally into the bone cover or bone fragment prior to positioning the bone cover or bone fragment adjacent to the skull,

wherein the support element comprises two support arms extending in opposite directions from the extension with the first of the two support arms defining a screw hole therein for receiving a fastener to secure the first support arm to the skull after the spike has been driven laterally into the bone cover or bone fragment and after positioning the bone cover or bone fragment adjacent to the skull and the second of the two support arms for cooperating with the bone cover or bone fragment when driving the spike laterally into the bone cover or bone fragment,

the first support arm being configured to engage the implant delivery device and the at least one spike being configured to receive a force from the implant delivery device to drive the at least one spike laterally into the bone cover or bone fragment.

49. (New) The implant according to Claim 48, wherein the screw hole in the first support arm is adapted to engage a locking mechanism of the implant delivery device.